

# Knowledge Fusion Interactive Class Editor (ICE) Enhancements in NX6

Palwinder Singh  
Raymond Kok

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UGS Connection Conference

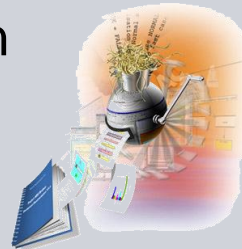


## NX 6 Projects Update

- ICE Application Packaging



- ICE Documentation Generation

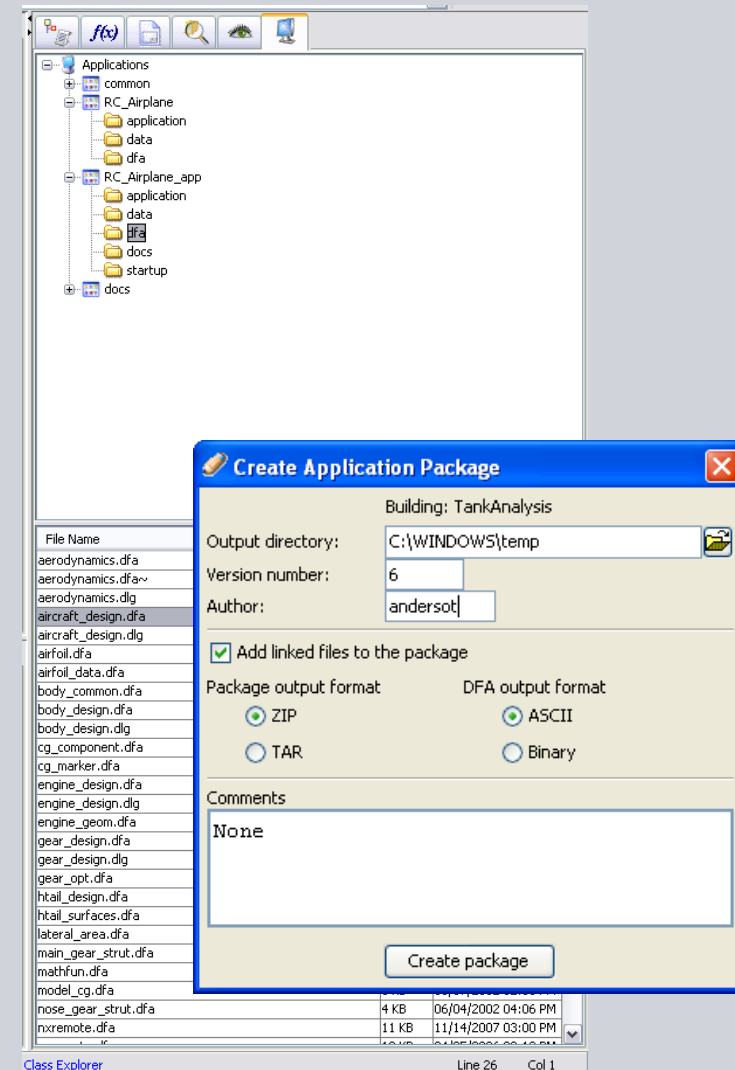


- ICE Coding Checkers



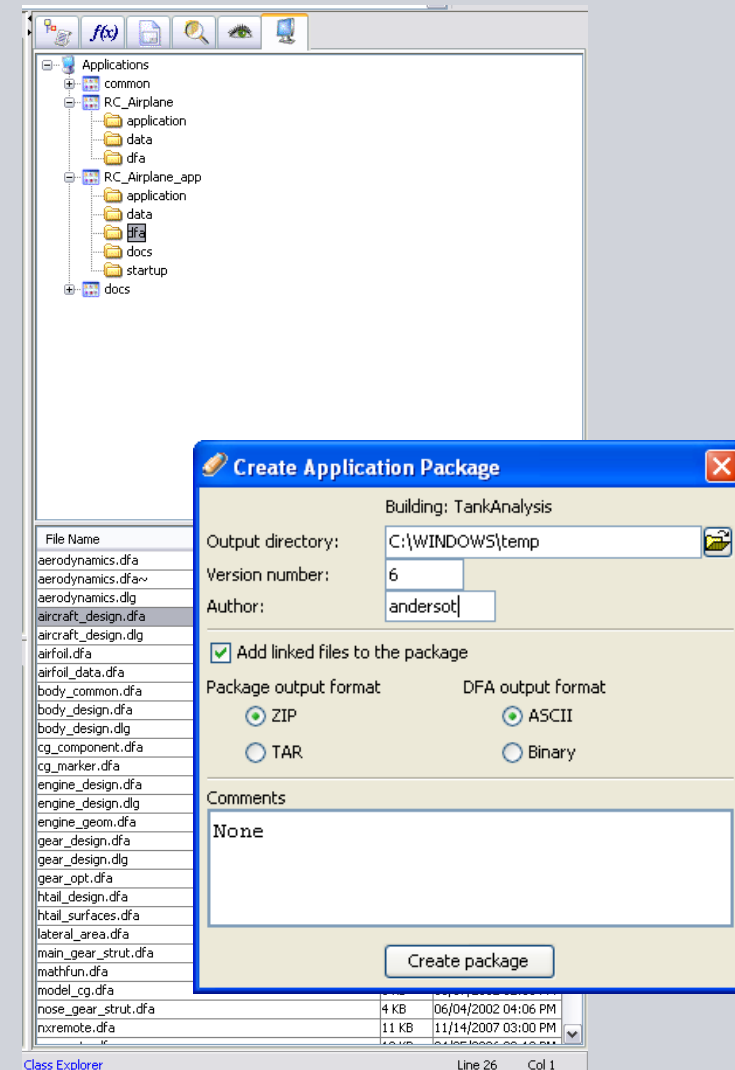
## ICE Application Packaging

- Application Explorer
  - Allows creating new KF applications (complete folder structure)
  - Zipped Applications can be opened in Application explorer



## ICE Application Packaging

- Packages can be modified
- Files can be added/modified/removed from the application
- Drag-drop files



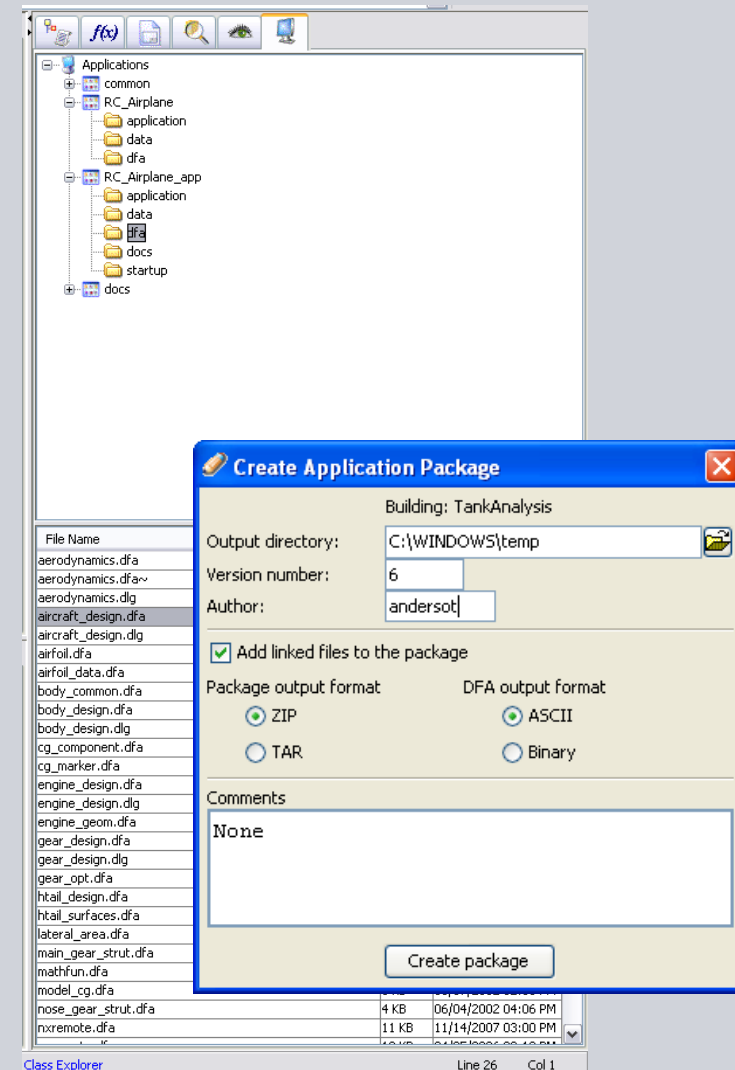
## ICE Application Packaging

- Integrated Image Viewer – double click action on images



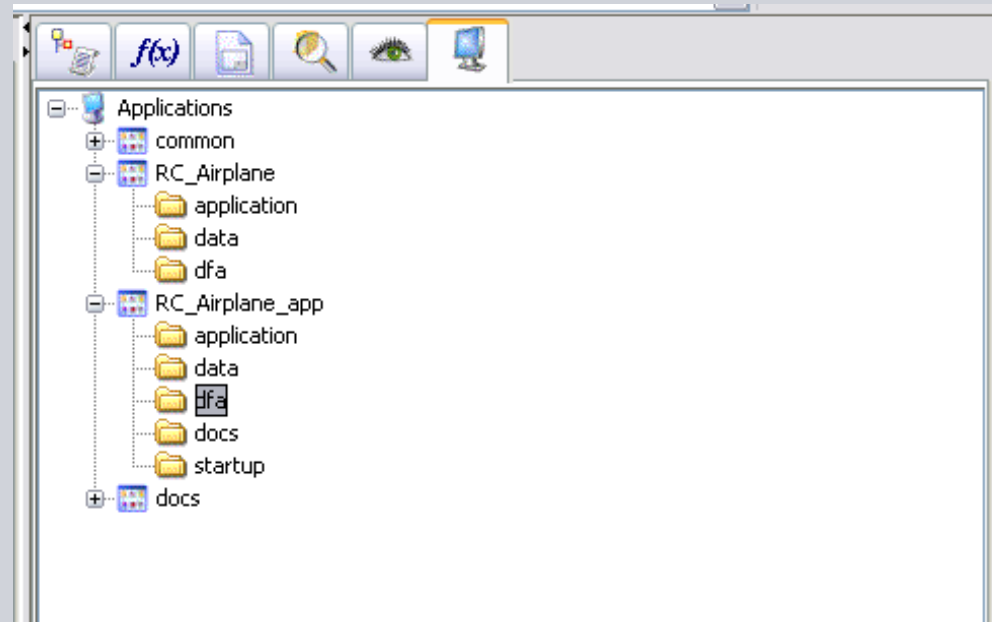
## ICE Application Packaging

- On completion of KF application development, authors can create deployment-ready package using a single click



# ICE Application Packaging

- Demo application packaging

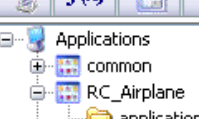


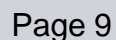
# ICE Automatic Document Generation

- New Tags introduced
  - Detailed Comments #. And .#
  - @param
  - @return
- Documentation lists summary and details for
  - Parameter
  - Modifiable Rules
  - Method and Functions





- 
- The screenshot shows the MATLAB Command Window with the file explorer on the left. The 'RC\_Airplane' folder is selected, and the 'Generate documentation...' option is highlighted in the context menu.



# ICE Automatic Document Generation

## ■ Demo Document Generation

[All Classes](#)  
  
 Packages  
[RC\\_Airplane](#)  
[common](#)

**All Classes**  
[aerodynamics](#)  
[aircraft\\_design](#)  
[airfoil](#)  
[airfoil\\_data](#)  
[body\\_common](#)  
[body\\_design](#)  
[cg\\_component](#)  
[cg\\_marker](#)  
[common\\_class1](#)  
[common\\_class2](#)  
[engine\\_design](#)  
[engine\\_geom](#)  
[gear\\_design](#)  
[Gear\\_opt](#)  
[htail\\_design](#)  
[htail\\_surfaces](#)  
[lateral\\_area](#)  
[main\\_gear\\_strut](#)  
[mathfun](#)  
[model\\_cg](#)  
[nose\\_gear\\_strut](#)  
[NXRemote](#)  
[rib](#)  
[SSM\\_opt](#)  
[tail\\_design](#)  
[Tire](#)  
[tuned\\_pipe](#)  
[vtail\\_design](#)  
[wing\\_design](#)  
[wing\\_layout](#)  
[wing\\_platform](#)  
[wing\\_ribs](#)  
[wing\\_spar](#)

[Overview](#)
[Package](#)
[Class](#)
[Tree](#)
[Deprecated](#)
[Index](#)
[Help](#)

[FRAMES](#)
[NO FRAMES](#)

RC\_Airplane

**Class NXRemote**

---

```
class NXRemote
  extends ug_base_part
```

---

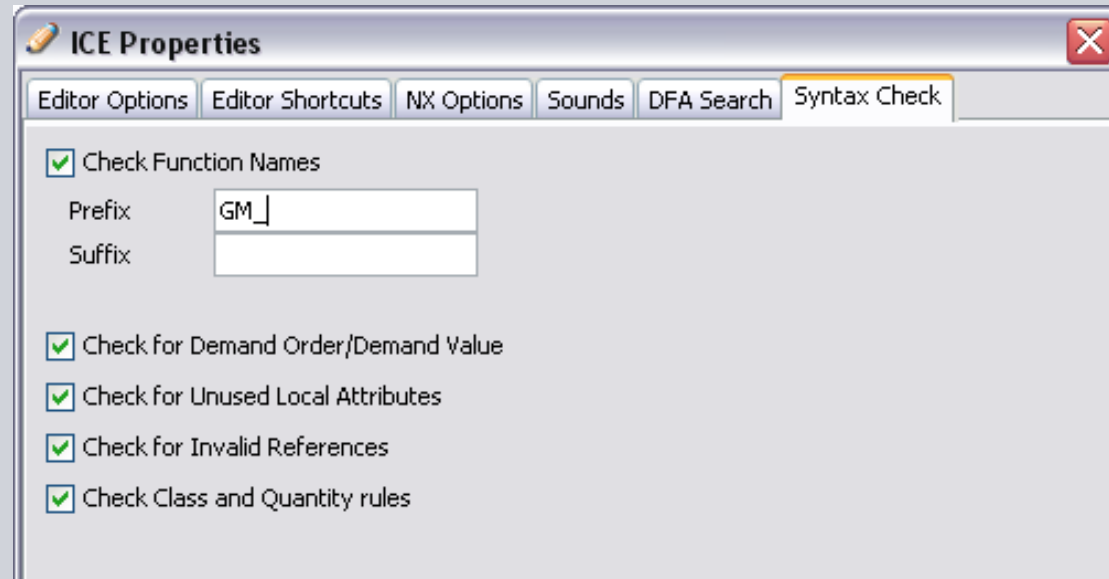
**Modifiable Rule Summary**

|         |                        |
|---------|------------------------|
| Integer | <a href="#">expr</a>   |
| String  | <a href="#">filter</a> |
| Integer | <a href="#">iValue</a> |
| String  | <a href="#">label</a>  |
| List    | <a href="#">mask</a>   |
| List    | <a href="#">nList</a>  |
| Number  | <a href="#">nValue</a> |
| Integer | <a href="#">object</a> |
| String  | <a href="#">prompt</a> |
| Point   | <a href="#">pValue</a> |
| Name    | <a href="#">scope</a>  |

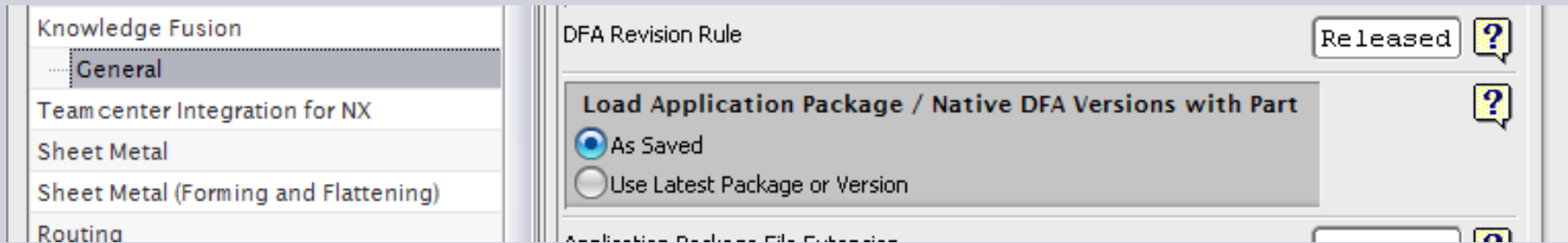
## ICE Coding Checker

■ ICE can now proactively “watch” code and give useful feedback about common KF coding problems like:

- demand order, demand value
- Invalid references
- unused attributes
- Class and Quantity
- Enterprise naming conventions for Functions

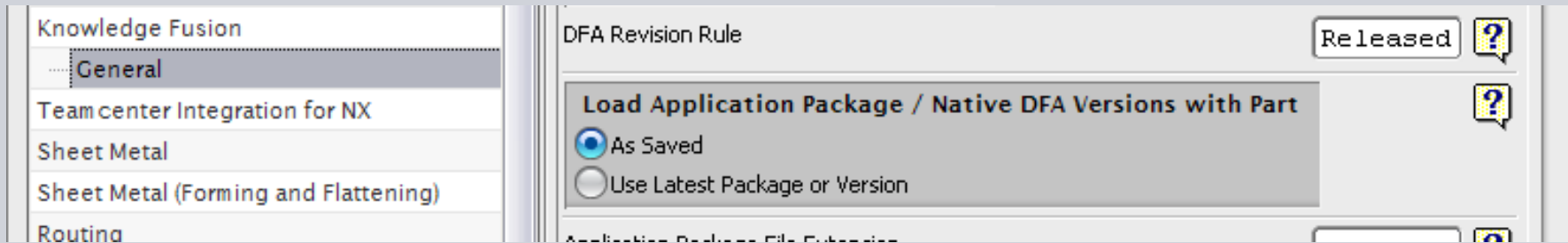


# KF Application and DFA Versioning



- Based on application package suffix and #! Version
- Parts can be opened “As Saved” or can be upgraded to “Latest Package or Version” on load (Customer defaults)
- Latest DFA or Application Package is available for instantiation

# KF Application and DFA Versioning



- Demo of DFA Versioning

# Deprecation

- @Deprecated tag introduced (Attributes, methods and functions can be deprecated)

```

+++
# @Deprecated Seating_Capacity
# Not a useful parameter anymore.
# More of the comment
#-
(Parameter Integer) Seating_Capacity: 4;

```

- Proper Documentation Generated

| Parameter Summary |                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------|
| Integer           | <u>Seating_Capacity</u><br><i>Deprecated:</i> Not a useful parameter anymore                |
| Number            | <u>VTailIMAC25</u><br>Distance to the 25% mean aerodynamic chord point of the vertical tail |

- ICE shows the Deprecated information in the table view as red entries

|                       |         |  |    |                                |
|-----------------------|---------|--|----|--------------------------------|
| ZeroAngleIn           | Number  |  | Mo | 0.0;                           |
| SpeedFactor           | Number  |  | Mo | 1.0;                           |
| Seating_Capacity      | Integer |  | P  | 4;                             |
| *(%) set_sheet_number | Boolean |  | Me | (Integer \$sheet_no) @ { true; |
| ReynoldsNumber        | Number  |  |    | AvgWingChord: * Speed: * KF    |

# Thank you...

Palwinder Singh

[Palwinder.Singh@siemens.com](mailto:Palwinder.Singh@siemens.com)

Raymond Kok

[Raymond.Kok@siemens.com](mailto:Raymond.Kok@siemens.com)